



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/667,003	09/21/2000	Woong Sik Choi	2658-191P	8781

2292 7590 10/02/2002

BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

EXAMINER

ALEXANDER REINDOR, NAA OBOSHIE C

ART UNIT	PAPER NUMBER
----------	--------------

2674

DATE MAILED: 10/02/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/667,003

Applicant(s)

CHOI ET AL.

XP

Examiner

Naa-Oboshie Alexander-Reindorf

Art Unit

2674

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 September 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aoki et al in view of Willard.

As per claim 1, 10, 25, 27, at column 1, lines 29–39 Aoki et al. teach an electro-luminescence display device comprising:

First, second, and third pixel cells, each displaying different colors (6R, 6G, or 6B); a first and second driving circuits (driver circuit 32) receiving a driving voltages and applying a driving currents to the pixel cells based on the driving voltages; wherein the driving voltages are equal. However, it is noted that Aoki et al. do not teach a method wherein the driving currents are different. But it would have been obvious to one skilled in the art to use the convention of applying different voltages for different color pixels, which would inherently produce different currents.

As per claim 2, 11, 22, at column 1, lines 64-68, Aoki et al. teach an electro-luminescence display wherein the driving circuits have different structures (amorphous silicon or polycrystalline).

Art Unit: 2674

As per claim 3, 12, 18, 23, 24, 26, and 28 the first and second driving circuits of Aoki et al. have been discussed above. Willard teaches devices where the first and second driving circuits each comprise channel lengths and channel widths, at column 1, lines 30- 36; the ratio formed by the length to width of each of the two being different at column 1, lines 37- 41. It would have been obvious to one skilled in the art at the time of the invention to incorporate the teaching of Willard into that of Aoki et al. because it is inherent that the two materials will have different characteristics.

As per claim 13, 19, at column 7, lines 46-48, Aoki et al. teach a device where the pixel cells are R, B, G pixel cells.

As per claims 4-10, 16,17, it would have been obvious to vary the characteristics of the circuits as claimed because it is known to change the resistance.

As per claim 20, in Figure 5 and 6, Aoki et al. teach a method of forming an electro-luminescence display, comprising forming a plurality of pixel cells (10x)) between the gate lines (9x) and the data lines (8x); forming a driving transistor for each pixel cell; and forming a data driving control circuit commonly connected to the data lines to provide an identical driving voltage to each pixel cell (column 7, line 29-34).

As per claim 21, in Figure 6, Aoki et al. teach a method of forming a plurality of pixel groups (10), each group having an R (1R), G (1G), and B (1B) pixels.

Art Unit: 2674

Conclusion

1. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Naa-Oboshie Alexander-Reindorf** whose telephone number is **703-305-3897**. The examiner can normally be reached on Mondays-Thursdays and alternate Fridays from 8:30 – 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe, can be reached at 703-305-4709.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks


Washington, D.C. 20231

or faxed to: (703) 872-9314.

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

NAR
September 25, 2002


RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600